b. an outer coating component having at least one layer less than 100 nm thick formed of a water swellable ceramic material on the inner coating component.

2. (Twice Amended) The intracorporeal device of Claim 1 wherein the inner coating component includes a plurality of bilayers.

SUB D2

3. (Twice Amended) The intracorporeal device of Claim 1 wherein the ceramic material of the at least one layer of the inner coating component is selected from the group consisting of zirconia, titania and alumina.

B3

4. (Amended) The intracorporeal device of Claim 1 wherein the water swellable ceramic material forms a hydrate or hydroxide in the presence of an oxygen containing environment.

5. (Twice Amended) The intracorporeal device of Claim 4 wherein the water swellable ceramic material is selected from the group consisting of alumina, zirconia, and hafnia containing ceramic materials.

6. (Twice Amended) The intracorporeal device of Claim 4 wherein the water swellable ceramic material is a nitride.

SUB D3

7. (Amended) The intracorporeal device of Claim 1 wherein the individual layers of the inner coating component are about one to about 100 nanometers thick.

B4

8. (Amended) The intracorporeal device of Claim 1 wherein the individual layers of the inner coating are about one to about 50 nanometers thick.

9. (Amended) The intracorporeal device of Claim 1 wherein the inner coating component has at least one bilayer with zirconia in one layer and alumina in the other layer.

10. (Amended) The intracorporeal device of Claim 1 wherein the inner coating component has at least one bilayer with zirconia in one layer and titania in the other layer.

11. (Amended) The intracorporeal device of Claim 4 wherein the hydrate or hydroxide compound is selected from the group consisting of aluminum hydroxide, aluminum hydrate, and mixtures thereof.

12. (Amended) The intracorporeal device of Claim 1 wherein the inner and outer coating components have a thickness of up to about a micron.

13. (Amended) The intracorporeal device of Claim 5 wherein the inner and outer coating components have a thickness in a range from about 1 to 50 nanometers.

14. (Amended) The intracorporeal device of Claim 1 wherein the at least one layer includes a plurality of nano-scale ceramic layers independently forming a hardness-imparting ceramic coating component and a toughness-imparting ceramic coating component.

15. (Amended) The intracorporeal device of Claim 14 wherein each of the hardness-imparting and the toughness-imparting coating components has a thickness independently ranging from about 1 to about 100 nm.

16. (Amended) The intracorporeal device of Claim 1 wherein the outer coating component has a thickness in the range from about 1 to about 100 nm.

17. (Amended) A nanostructure protective coating for a substrate, the coating comprising a plurality of nano-scale ceramic layers including an inner coating component secured to the substrate having at least one bilayer with one layer formed of material selected from the group consisting of zirconia, titania, alumina, and aluminum nitride and another layer formed of a different material selected from the same group of materials and a self sealing outer coating component.

18. (Amended) A nanostructure protective coating for a substrate, the coating comprising an outer coating component comprising a compound capable of forming a hydrate or hydroxide compound upon contact with an oxygen containing environment and an inner coating component secured to the substrate comprising a bilayer of ceramic materials.

19. (Amended) ~~The~~ coating of Claim 18 wherein the outer coating component comprises an aluminum compound.

21. (Amended) An intracorporeal implant, comprising:

a substrate selected from the group consisting of metals, polymers, and a combination thereof; and

a protective coating thereon having a plurality of coating components comprising

a first coating component having a plurality of bilayers wherein each layer is formed of a material selected from the group consisting of zirconia and alumina ;

a second coating component disposed on the first coating component having a plurality of bilayers with each layer formed of a material selected from the group consisting of zirconia and titania ; and

a third coating component disposed on the second coating component formed of a compound which has microcrystallinity and which is capable of forming a hydrate or hydroxide upon contact with an oxygen containing environment.

22. (Amended) The implant of Claim 21 wherein the compound is an aluminum compound.

23. (Amended) The implant of Claim 21 wherein the compound is aluminum nitride.

24. (Amended) The implant of Claim 21 wherein the compound is selected from the group consisting of aluminum hydroxide, aluminum hydrate, and mixtures thereof.

25. (Amended) The implant of Claim 21 wherein the coating thickness is in a range from about 1 to about 100 nanometers.

26. (Amended) The implant of Claim 21 wherein the coating thickness is in a range from about 1 to 50 nanometers.

27. (Amended) An intracorporeal implant, comprising:

a substrate selected from the group consisting of metals, polymers, and a combination thereof having a protective coating thereon, comprising:

a plurality of nano-scale ceramic layers with each layer formed of one or more compounds selected from the group consisting of zirconia, titania, alumina, and aluminum nitride.

28. (Amended) An intracorporeal implant, comprising a substrate selected from the group consisting of metals, polymers, and a combination thereof and having a protective coating thereon which has a self sealing outer coating component having nano-crystallinity and comprising a compound capable of forming a hydrate or hydroxide compound upon contact with an oxygen containing environment.

29. (Amended) The implant of Claim 28 wherein the [outermost] outer coating component comprises an aluminum compound.

31. (Amended) The protective coating of Claim 1 wherein the outer coating component is formed at least in part of a nano-crystalline water swellable material.

33. (Amended) The implant of Claim 28 wherein the coating further includes a plurality of nano-scale ceramic layers independently forming a hardness-imparting coating component and a toughness-imparting coating component.